

Ethanol Trade

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Net Exporters											
					(Million Gallons)						
Brazil	1,165	1,169	1,466	1,820	2,124	2,395	2,818	3,268	3,647	4,236	4,896
China	52	31	13	-9	-21	-35	-44	-54	-67	-78	-91
Total Net Exports *	1,216	1,201	1,479	1,820	2,124	2,395	2,818	3,268	3,647	4,236	4,896
Net Importers											
Canada	165	260	312	364	412	460	503	550	599	657	711
European Union	318	318	352	401	436	467	494	523	559	586	617
India	0	23	59	90	107	120	130	139	153	163	172
Japan	149	196	234	273	308	343	377	412	447	481	516
South Korea	81	104	132	154	175	195	215	236	257	276	297
United States	436	195	250	353	454	528	772	1,037	1,211	1,605	2,070
ROW	67	104	140	176	212	247	282	317	353	388	423
Total Net Imports *	1,216	1,201	1,479	1,820	2,124	2,395	2,818	3,268	3,647	4,236	4,896
Prices					(U.S. Dollars per Gallon)						
Anhydrous Ethanol Price, Brazil **	1.76	1.48	1.36	1.29	1.34	1.37	1.45	1.51	1.53	1.62	1.69
Ethanol, FOB Omaha	2.47	1.68	1.75	1.81	1.91	1.99	2.10	2.19	2.17	2.06	2.00

Note: 1 gallon = 3.7857 liters; 1 metric ton = 1237.1644 liters.

* Total net exports are the sum of all positive net exports.

** Represents world ethanol price.

Biodiesel Trade

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Net Exporters											
					(Million Gallons)						
Argentina	264	320	188	218	239	253	262	268	270	271	270
Brazil	-1	167	69	103	127	144	154	160	162	161	157
Indonesia	102	117	149	166	173	171	165	155	143	128	112
Malaysia	51	47	48	48	48	48	48	47	47	47	47
United States	353	322	284	244	199	178	174	178	184	187	184
Total Net Exports *	771	974	737	779	785	794	803	809	806	794	769
Net Importers											
European Union	300	487	253	296	304	313	323	329	327	315	291
Japan	4	19	17	16	15	15	15	15	15	14	14
ROW	465	468	468	467	466	466	466	465	465	465	464
Total Net Imports *	771	974	737	779	785	794	803	809	806	794	769
Prices					(U.S. Dollars per Gallon)						
Central Europe FOB Price **	5.25	3.74	4.08	4.47	4.73	4.86	5.02	5.14	5.28	5.43	5.56
Biodiesel Plant	4.64	3.45	3.53	3.84	4.12	4.24	4.33	4.41	4.49	4.59	4.69

Note: 1 gallon = 3.7857 liters; 1 metric ton = 1136.36 liters.

* Total net exports are the sum of all positive net exports.

** Represents world biodiesel price.

U.S. Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol	(Million Gallons)										
Production	9,262	10,295	11,504	12,384	13,185	13,715	14,508	15,320	15,990	16,361	16,736
Consumption	9,511	10,387	11,680	12,693	13,597	14,220	15,243	16,318	17,163	17,936	18,781
Net Trade	-436	-195	-250	-353	-454	-528	-772	-1,037	-1,211	-1,605	-2,070
Biodiesel											
Production	677	804	921	1,040	1,149	1,178	1,174	1,178	1,184	1,187	1,184
From Soybean Oil	394	429	496	578	656	668	657	658	661	663	660
From Other Fats and Oils	284	375	425	462	493	510	517	520	522	524	525
Consumption	324	482	638	796	950	1,000	1,000	1,000	1,000	1,000	1,000
Net Trade	353	322	284	244	199	178	174	178	184	187	184

Argentine Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Biodiesel	(Million Gallons)										
Production	269	333	380	414	439	458	472	482	490	496	500
Consumption	6	13	192	196	200	205	210	214	219	225	230
Net Trade	264	320	188	218	239	253	262	268	270	271	270
Use in Biodiesel Production	(Thousand Metric Tons)										
Soybean Oil	941	1,157	1,314	1,427	1,507	1,564	1,604	1,631	1,649	1,661	1,667

Brazilian Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol	(Million Gallons)										
Production	6,673	7,749	8,546	9,140	9,662	10,190	10,843	11,558	12,258	13,119	14,091
Consumption	5,509	6,508	7,067	7,318	7,539	7,796	8,027	8,291	8,612	8,885	9,197
Net Trade	1,165	1,169	1,466	1,820	2,124	2,395	2,818	3,268	3,647	4,236	4,896
Use in Ethanol Production	(Thousand Metric Tons)										
Sugarcane	293,259	326,134	356,811	378,589	397,029	415,414	438,506	463,708	487,905	518,019	551,996
Biodiesel	(Million Gallons)										
Production	291	528	682	728	765	794	818	837	853	865	875
Consumption	266	361	613	626	638	651	664	677	691	704	719
Net Trade	-1	167	69	103	127	144	154	160	162	161	157
Use in Biodiesel Production	(Thousand Metric Tons)										
Soybean Oil	863	1,557	1,997	2,115	2,205	2,273	2,323	2,359	2,384	2,400	2,408

Canadian Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol	(Million Gallons)										
Production	222	247	261	261	263	266	271	275	284	292	301
Consumption	387	507	573	625	675	726	774	825	883	949	1,012
Net Trade	-165	-260	-312	-364	-412	-460	-503	-550	-599	-657	-711
Use in Ethanol Production	(Thousand Metric Tons)										
Corn	1,615	1,796	1,898	1,898	1,914	1,936	1,969	2,003	2,064	2,122	2,191
Wheat	695	772	816	816	823	832	847	861	887	912	942

Chinese Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol	(Million Gallons)										
Production	500	509	516	522	535	548	562	577	591	607	623
Consumption	448	478	503	531	556	582	607	631	659	686	714
Net Trade	52	31	13	-9	-21	-35	-44	-54	-67	-78	-91
Use in Ethanol Production	(Thousand Metric Tons)										
Corn	3,403	3,630	3,690	3,737	3,798	3,890	3,985	4,091	4,197	4,303	4,417

European Union Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol	(Million Gallons)										
Production	569	683	800	889	983	1,079	1,178	1,276	1,370	1,469	1,566
Consumption	887	1,001	1,152	1,290	1,420	1,547	1,672	1,799	1,930	2,056	2,183
Net Trade	-318	-318	-352	-401	-436	-467	-494	-523	-559	-586	-617
Use in Ethanol Production	(Thousand Metric Tons)										
Wheat	1,385	1,663	1,947	2,163	2,393	2,627	2,868	3,105	3,335	3,576	3,812
Corn	378	453	531	590	653	716	782	847	910	975	1,040
Barley	630	756	885	983	1,088	1,194	1,304	1,411	1,516	1,625	1,733
Biodiesel	(Million Gallons)										
Production	1,711	1,594	2,048	2,148	2,228	2,257	2,325	2,386	2,454	2,527	2,617
Consumption	2,012	2,083	2,303	2,446	2,533	2,571	2,649	2,716	2,782	2,844	2,909
Net Trade	-300	-487	-253	-296	-304	-313	-323	-329	-327	-315	-291
Use in Biodiesel Production	(Thousand Metric Tons)										
Rapeseed Oil	5,077	3,131	4,439	4,713	5,022	5,265	5,533	5,723	5,933	6,156	6,343
Soybean Oil	702	1,074	1,260	1,284	1,291	1,264	1,253	1,233	1,217	1,200	1,184
Sunflower Oil	54	474	504	515	526	528	532	535	539	543	549

Indian Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol	(Million Gallons)										
Production	515	497	488	487	498	509	523	537	548	563	578
Consumption	490	513	543	572	595	620	642	666	693	716	739
Net Trade	0	-23	-59	-90	-107	-120	-130	-139	-153	-163	-172

Indonesian Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Biodiesel	(Million Gallons)										
Production	105	172	218	249	270	284	293	300	304	307	309
Consumption	3	55	69	83	97	112	128	144	161	179	197
Net Trade	102	117	149	166	173	171	165	155	143	128	112
Use in Biodiesel Production	(Thousand Metric Tons)										
Palm Oil	367	601	760	869	942	992	1,025	1,048	1,063	1,073	1,079

Japanese Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol											
Net Trade	-149	-196	-234	-273	-308	-343	-377	-412	-447	-481	-516
Biodiesel											
Net Trade	-4	-19	-17	-16	-15	-15	-15	-15	-15	-14	-14

South Korean Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol											
Net Trade	-81	-104	-132	-154	-175	-195	-215	-236	-257	-276	-297

Malaysian Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Biodiesel											
Net Trade	51	47	48	48	48	48	48	47	47	47	47

Rest of World Biofuels Production and Consumption

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ethanol											
Net Trade	-67	-104	-140	-176	-212	-247	-282	-317	-353	-388	-423
Biodiesel											
Net Trade	-465	-468	-468	-467	-466	-466	-466	-465	-465	-465	-464